



**DECLARATION OF DAVID MCGOVERAN**

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**GROUP 3600**

I am the inventor of the invention described in patent application 09/476,711, "Declarative Method for Business Management".

I have attached a true copy of my curriculum vitae summarizing my education, training, and experience.

I have been working within the fields of computer science, declarative methods (instantiations of formal logic in a constrained environment which enables the control and operation externally to the description of the functions and operations), declarative programming, relational databases, and computer programming, for over twenty-five years.

I have attended at least twenty-five conferences in which the topics of declarative methods and declarative programming were a major element of talks, demonstrations, and discussions, over the past twenty years.

In particular, I have been using declarative methods and declarative programming in my own work since at least 1978; and I have worked with over two hundred other individuals who have had experience with these tools.

I have attended at least twenty-five conferences in which the topic of declarative programming was a major element of talks, demonstrations, and discussions, over the past twenty years.

I have also been using the declarative paradigm for at least twenty years, and am reasonably familiar with the literature and applications thereof in the business world.

I have attended at least ten conferences in which the topic of the declarative paradigm was a major element of talks, demonstrations, and discussions, over the past fifteen years.

I have been working on business management efforts — and more particularly practical implementation efforts of theoretical concepts, processes, methods, and operations thereof — and studying the literature and this field for over twenty-five years.

I have attended at least ten conferences in which the topic of implementation of business management efforts using theoretical concepts, processes, methods, and operations was a major element of talks, demonstrations, and discussions, over the past twenty-five years.

I have also been involved with over twenty efforts at creating real-world business software implementing business management efforts during my life.

The concept of using the inductive process to derive from a set of rules and constraints further specific rules, is well-known in the field of declarative methods (and more particularly, for example, the newer field of data mining), as it has been the topic of at

least ten peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field of declarative methods for at least the last two decades.

The concept of declaring an objective as a set of measurable goals and constraints is well known in the field of declarative methods, as it has been the topic of at least twenty peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last two decades.

The concept of stating for each objective a corresponding and applicable set of rules, each rule containing both a condition (that governs its actuation) and an action, is well known in the field of declarative methods (and more particularly within that field in the sub-topics of constraint programming and constraint databases), as it has been the topic of at least ten peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last two decades.

The concept of using constraints to guide the application of rules is well known in the field of declarative programming (and more particularly within that field in the sub-topics of constraint programming and constraint databases), as it has been the topic of at least ten peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last ten years.

The concept of using constraints to guide the selection and application of particular rule sets is well known in the field of declarative programming (and more particularly within that field in the sub-topics of rule-based expert systems, constraint programming, and constraint databases), as it has been a topic of at least ten peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last ten years.

The concept of using inheritance to pass constraints down within a hierarchy of implementation, is well known within the field of computer programming (and more particularly within that field in the sub-topics of constraint hierarchies, logic programming, and object oriented programming), as it has been a topic of at least ten peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last ten years; and has been taught at the undergraduate and even high-school level for at least the past ten years.

The concept of testing each rule against conditions both internal and external to said dynamic process, as they exist in the real world, without specifying the order of testing, unless the order becomes governed by the actuation of at least one rule whose precondition governing its actuation becomes satisfied, is well known in the field of declarative methods (and more particularly within that field in rule-based expert systems), as it has been a topic of at least ten peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last twenty decades.

The concept of actuating a rule when its condition is met is well known in the fields of declarative methods, declarative programming, and computer science, as it has been the topic of at least twenty peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last twenty years; and has been taught at the undergraduate and even high-school level for at least the past ten years.

The concept of delegating an objective and associated responsibility for attaining it to a specific actor has been well-known in the field of business management (and more particularly the sub-topic of management by objective) for at least four decades; it has been the topic of at least twenty peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last thirty years; and has been taught at the undergraduate and even high-school level for at least the past thirty years.

The implementation of a computer program to instantiate in a declarative method a program internalizing feedback and using one or more objective, goal, constraint, set of rules, or rule, has been well known in the field of declarative programming (and more particularly the application of declarative programming to control systems) for at least ten years, as it has been the topic of at least ten peer-reviewed papers of which I am aware. Furthermore, this concept has been a core part of this field for at least the last five years.

I am aware of at least one hundred major corporations, and at least four past and present client businesses, who have previously contracted for my services, who would benefit from using my invention; and I would estimate the improvement to their net return to their shareholders would at a minimum exceed one million dollars, each.

Based on my experience of implementing business management efforts, a person of ordinary skill in the art, after reading my invention (hereafter 'ZM') as described in the specification, drawings, and claims, could create within five man-weeks of effort a particular implementation which would be both operational and beneficial for a company having a relatively simplistic business strategy and environment (for example, few business processes, few levels of management, a single line of products, under 100 employees, under 1,000 regular customers, and no unusually difficult business conditions -- such as selling radiologicals, or any goods or services requiring strict compliance with national and international regulatory and supervisory authorities such as the FDA, EPA, AEC, or international arms inspectors). Most of this effort will be consumed in achieving an understanding of the business and in deciding to what aspects of the business ZM would be best applied, and not in achieving an understanding or implementing of ZM itself. If this were to be implemented as a computer program, (possibly with the purchase of off-the-shelf software tools to ease the burden of rules management and to provide automated induction) to handle a level of detail exceeding realistic, sustainable, non-expert human capacity, at least half of the work would arise from complications with the details of standard computer programming efforts in coordination between the hardware and software of the developmental environment and the hardware and software of the final operational environment.

Again based on my experience of implementing business management efforts, a person of ordinary skill in the art, after reading my invention as described in the specification, drawings, and claims, could create a particular application which would be both operational and beneficial for a company having a relatively complex of business strategy and environment (for example, many business processes, many levels of management, multiple lines of products, multiple 100's of employees, over 1,000 regular customers, and yet no unusually difficult business conditions as detailed above), within twenty-six man-weeks of effort per department of the company involved. Again, most of this effort will be consumed in achieving an understanding of the business and in deciding to what aspects of the business ZM would be best applied, and not in achieving an understanding or implementing of the invention. At least one-third of the time and effort would arise from communication and standardization complexities inherent within the pre-existing business operations, rather than from any difficulty with the instantiation. If this were to be done as a computer program (possibly through with the purchase of off-the-shelf software tools to ease the burden of rules management and to provide automated induction) to handle a level of detail exceeding realistic, sustainable, non-expert human capacity, at least a further quarter of the work would arise from complications with the details of standard computer programming efforts in coordination between the hardware and software of the developmental environment and the hardware and software of the final operational environment.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on Nov. 21, 2003.

  
David O. McGoveran